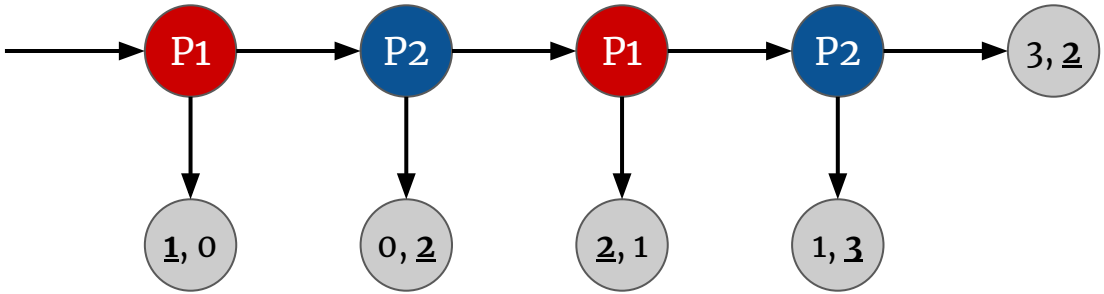
Alternatives to Direct Selfishness

Game Theory Exploration

Selfishness Being Self-Defeating:

Centipede Game:



Prisoner's Dilemma:

		P2	
P1		2, 2	4, -3
		-3, 4	-2, -2

Idea: Conversation Stopping Points (or sets)

Look for strategy pairs (s1, s2) such that:

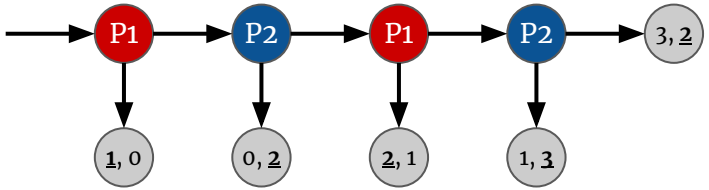
P1 is not selfishly incentivised to change given P2 is allowed a response.

(And vice versa)

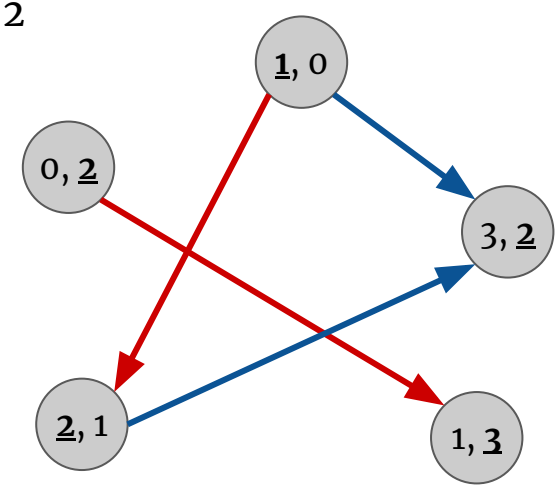
Consider doing this for infinitely many steps rather than 2.

Can model with just 2 and 3.

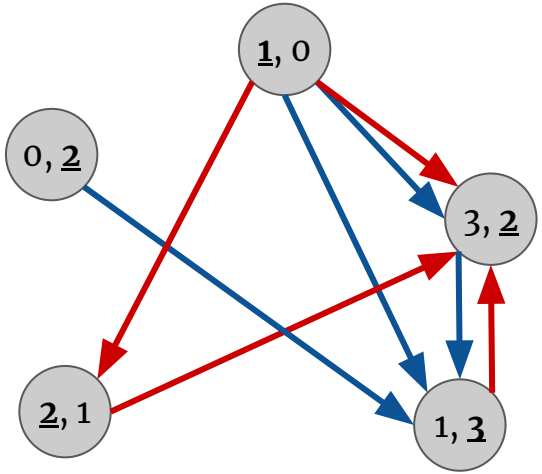
Create Directed Graph. Find Solution Sets.



For 2



For 3



Pseudocode

Directed graph creation:

For every strategy pair (s1, s2):

    For both the 2-step and 3-step cases:

        Compute set S of strategy pairs moved to {(s3, s4), etc.}

        For pair p in S:

            Add directed edge from outcome((s1, s2)) to outcome(p)

Finding cycles:

[I don’t know these kernels yet.]